



TRI-STATE
Generation and Transmission
Association, Inc.

**Seminar will present findings from a study conducted by the California Energy Commission,
Project funded by PIER (Public Interest Energy Research)**

Power Quality Workshop: Harmonic Mitigation

**Hosted at Tri-State
Generation & Transmission
Association.**

1. Seminar date and time:

June 22, 2006

**Morning Session 9:00 AM to
Noon**

**Afternoon Session 1:30 PM
to 4:00 PM**

**2. Location: Tri-State
Corporate Headquarters,
Multi - Purpose Room.
1100 West 116th Avenue
Westminster, Co 80234**

Free Parking in Visitor Lot

3. Please register On-line to:

Ms. Robin Wilkins at

rwilkins@tristategt.org

Telephone registration at
(303) 254-3242

**Seating is limited,
early registration is
recommended**

Many older buildings were never designed to support large computer loads.

Electrical Harmonics:

Schools, Colleges, Offices, Broadcasting, Financial, Medical and Government facilities designed and constructed pre-1991 simply were not wired to support the number of computers now being used in them. Computer-generated harmonic currents cause problems in electrical systems and consume additional energy. Engineers designing new buildings today must be aware of the potential for harmonic-caused problems and should consider incorporating technology into their designs to minimize these problems.

This **No Cost** seminar will demonstrate harmonic current impact on phase and neutrals wires under different loads.

Participants will view well-established electrical distribution system designs used to support computer environments to evaluate the capability of each design to mitigate harmonic problems.

Systems evaluated include:

- Standard Transformers
- K-rated Transformers
- Zig-Zag (Harmonic
- Mitigating Transformers)
- Harmonic Suppression Technology

Presenter: Mr. Gary Miller

Mr. Miller is an Electrical Engineer with many years of experience in the development and troubleshooting of electrical and electronic products.

He retains membership in the IEEE Power and Energy Society, Consumer Electronics Society and is also a National Member of the Society of Cable Television Engineers.

Mr. Miller is currently Director of Field Services at Harmonics Limited.